

10/594732

IAP2 Rec'd PCT/PTO 29 SEP 2006

PATENT

Attorney Docket No. 04853.0139

Customer No. 22,852

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Eita ICHIGE et al.)	
)	
Application No.: Not Yet Assigned)	Group Art Unit: Not Yet Assigned
)	
Filed: September 29, 2006)	Examiner: Not Yet Assigned
)	
For: NOVEL MODIFIED)	
S-HYDROXYNITRILE LYASE)	

National Stage of International Application No. PCT/JP2005/006730 under 35 U.S.C. 371

MAIL STOP PCT

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)

Pursuant to 37 C.F.R. §§1.56 and 1.97(b), applicants bring to the Examiner's attention the documents listed on attached Form PTO/SB/08 and cited in the international search report. A copy of each listed document is attached. Applicants respectfully request that the Examiner consider the documents listed on attached Form PTO/SB/08 and indicate that they were considered by making an appropriate notation on this form.

This Information Disclosure Statement is being filed with the above-referenced application.

The following is listed on the accompanying PTO/SB/08 and is in a non-English language:

1. Japanese patent publication no. 2000-125886. The relevance of this document is discussed at page 2 of the specification of the present application. An English language abstract of this document is also enclosed.

In lieu of a statement of relevance or the translation of the non-English document listed above, enclosed is an English-language international search report from the Japanese Patent Office in the PCT international application, from which this national phase U.S. application is derived, citing this document and setting forth the relevance thereof.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and applicants determine that the cited documents do not constitute "prior art" under United States law, applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of such documents. Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please
charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: September 29, 2006

By: 

Ernest F. Chapman
Reg. No. 25,961

Enclosures
EFC//FPD/blc

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IDS Form PTO/SB/08: Substitute for form 1449A/PTO				Application Number		Not Yet Assigned
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Filing Date		September 29, 2006
				First Named Inventor		Eita ICHIGE
				Art Unit		Not Yet Assigned
				Examiner Name		Not Yet Assigned
				Attorney Docket Number		04853.0139
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U.S. PATENTS AND PUBLISHED U.S. PATENT APPLICATIONS					
Examiner Initials ¹	Cite No. ¹	Document Number	Issue or Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			

Note: Copies of the U.S. Patent Documents are not Required in IDS filed after October 21, 2004

FOREIGN PATENT DOCUMENTS						
Examiner Initials ¹	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Translation ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
		JP 2000-125886	05-09-2000	Effenberger et al.		Abstract

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation ⁶
		GRUBER et al., "BIOPOLYMERS FOR BIOCATALYSIS: STRUCTURE AND CATALYTIC MECHANISM OF HYDROXYNITRILE LYASES", Journal of Polymer Science: Part A: Polymer Chemistry, Vol. 42, pp. 479-486, (2004).	
		HASSLACHER et al., "MOLECULAR CLONING OF THE FULL-LENGTH cDNA OF (S)-HYDROXYNITRILE LYASE FROM HEVEA BRASILIENSIS", The Journal of Biological Chemistry, Vol. 271, No. 10, pp. 5884-5891, (1996).	
		YAN et al., "A SINGLE RESIDUAL REPLACEMENT IMPROVES THE FOLDING AND STABILITY OF RECOMBINANT CASSAVA HYDROXYNITRILE LYASE IN E. COLI", Biotechnology Letters, Vol. 25, pp. 1041-1047, (2003).	
		GLIEDER et al., "COMPREHENSIVE STEP-BY-STEP ENGINEERING OF AN (R)-HYDROXYNITRILE LYASE FOR LARGE-SCALE ASYMMETRIC SYNTHESIS", Angew. Chem. Int. Ed., Vol. 42, pp. 4815-4818, (2003).	
		LAUBLE et al., "CRYSTAL STRUCTURE OF HYDROXYNITRILE LYASE FROM SORGHUM BICOLOR IN COMPLEX WITH THE INHIBITOR BENZOIC ACID: A NOVEL CYANOGENIC ENZYME", Biochemistry, Vol. 41, pp. 12043-12050, (2002).	
		STRANZL et al., "OBSERVATION OF A SHORT, STRONG HYDROGEN BOND IN THE ACTIVE SITE OF HYDROXYNITRILE LYASE FROM HEVEA BRASILIENSIS EXPLAINS A LARGE pK _a SHIFT OF THE CATALYTIC BASE INDUCED BY THE REACTION INTERMEDIATE", The Journal of Biological Chemistry, Vol. 279, No. 5, pp. 3699-3707, (2004).	
		LAUBLE et al., "MECHANISTIC ASPECTS OF CYANOGENESIS FROM ACTIVE-SITE MUTANT SER80ALA OF HYDROXYNITRILE LYASE FROM MANIHOT ESCULENTA IN COMPLEX WITH ACETONE CYANOHYDRIN", Protein Science, Vol. 10, pp. 1015-1022, (2001).	
		LAUBLE et al., "STRUCTURE DETERMINANTS OF SUBSTRATE SPECIFICITY OF HYDROXYNITRILE LYASE FROM MANIHOT ESCULENTA", Protein Science, Vol. 11, pp. 65-71, (2002).	

IDS Form PTO/SB/08: Substitute for form 1449A/PTO				Complete if Known	
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				First Named Inventor	Eita ICHIGE
				Art Unit	Not Yet Assigned
				Examiner Name	Not Yet Assigned
Sheet	2	of	2	Attorney Docket Number	04853.0139

	BAIK et al., "SIGNIFICANTLY ENHANCED STABILITY OF GLUCOSE DEHYDROGENASE BY DIRECTED EVOLUTION", Appl. Microbiol. Biotechnol., Vol. 61, pp. 329-335, (2003).	
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Examiner Signature		Date Considered	
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.